

July 2015

## Johnson County

### Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 37 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Johnson County economy.<sup>1</sup> These 37 sectors have a total direct output of approximately \$2862 million and support 7,245.4 jobs in Johnson County. Running the model for all 37 sectors simultaneously produces the following results:

#### Agriculture Contribution in Johnson County

Impact Type <sup>2</sup>	Employment	% of Total Employment	Total Value Added <sup>3</sup>	% of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>	% of Gross Regional Product
Direct Effect	7,245.4	2%	\$693,992,687	2%	\$2,862,435,598	8%
Indirect Effect	3,559.6	1%	\$407,709,455	1%	\$666,660,269	2%
Induced Effect	3,457.8	1%	\$278,376,975	1%	\$457,843,925	1%
Total Effect	14,262.9	3%	\$1,380,079,117	4%	\$3,986,939,793	11%

As shown in the above table, agriculture, food, and food processing supports 14,262.9 jobs, or 3% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$3987 million, roughly 11% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 37 agriculture, food, and food processing sectors is approximately \$1380 million, or 4% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 4% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:  
[https://implan.com/index.php?option=com\\_content&view=category&id=19](https://implan.com/index.php?option=com_content&view=category&id=19)

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

<sup>4</sup> GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

<sup>5</sup> Output = Intermediate Inputs + Value Added

In the top ten by employment, Landscape and horticultural services is the top employer in the agriculture industry with 2,620.7 employees. This table also shows the amount of jobs that are created by the agriculture industry in Johnson County.

#### Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Landscape and horticultural services .....	2,620.7	\$212,567,508
Veterinary services .....	1,081.0	\$77,891,781
Wholesale trade.....	967.7	\$246,575,156
Bread and bakery product, except frozen, manufacturing .....	522.6	\$57,619,314
Spice and extract manufacturing.....	509.6	\$307,533,236
Dog and cat food manufacturing .....	386.8	\$502,228,568
Real estate.....	366.4	\$61,640,959
Animal production, except cattle and poultry and eggs.....	349.0	\$21,065,550
Bottled and canned soft drinks & water.....	308.2	\$253,656,380
Full-service restaurants.....	303.7	\$15,398,526

The Fats and oils refining and blending industry directly contributes approximately \$569 million to Johnson County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

#### Top 10 Industries Affected by Output

Sector Description:	Total Employment	Total Output
Fats and oils refining and blending .....	275.1	\$569,246,929
Dog and cat food manufacturing .....	386.8	\$502,228,568
Other animal food manufacturing.....	209.9	\$332,450,304
Spice and extract manufacturing.....	509.6	\$307,533,236
Bottled and canned soft drinks & water.....	308.2	\$253,656,380
Wholesale trade.....	967.7	\$246,575,156
Landscape and horticultural services .....	2,620.7	\$212,567,508
Soybean and other oilseed processing .....	24.1	\$125,164,793
Dry pasta, mixes, and dough manufacturing .....	163.8	\$107,081,972
Veterinary services .....	1,081.0	\$77,891,781

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Johnson County's economy.

Sector Description:	Employment	Output
Oilseed farming .....	5.6	\$7,285,795
Grain farming.....	17.6	\$3,662,409
Vegetable and melon farming.....	6.0	\$682,841
Greenhouse, nursery, and floriculture production.....	57.5	\$6,039,566
All other crop farming.....	62.8	\$4,746,426
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming.....	96.9	\$14,963,672
Dairy cattle and milk production .....	11.2	\$1,247,290
Poultry and egg production .....	0.7	\$196,925
Animal production, except cattle and poultry and eggs .....	349.0	\$21,065,550
Commercial logging .....	7.0	\$373,983
Dog and cat food manufacturing.....	386.8	\$502,228,568
Other animal food manufacturing.....	209.9	\$332,450,304
Flour milling.....	24.2	\$37,224,577
Malt manufacturing.....	11.5	\$19,555,802
Soybean and other oilseed processing.....	24.1	\$125,164,793
Fats and oils refining and blending.....	275.1	\$569,246,929
Nonchocolate confectionery manufacturing .....	2.9	\$1,771,934
Confectionery manufacturing from purchased chocolate .....	59.4	\$18,797,608
Meat processed from carcasses .....	55.8	\$26,382,533
Poultry processing .....	4.7	\$1,173,929
Bread and bakery product, except frozen, manufacturing.....	522.6	\$57,619,314
Frozen cakes and other pastries manufacturing.....	26.3	\$3,897,891
Cookie and cracker manufacturing.....	2.1	\$714,934
Dry pasta, mixes, and dough manufacturing .....	163.8	\$107,081,972
Spice and extract manufacturing.....	509.6	\$307,533,236
All other food manufacturing.....	152.6	\$54,229,860
Bottled and canned soft drinks & water .....	308.2	\$253,656,380
Breweries.....	3.7	\$3,441,758
Wineries.....	2.1	\$616,520
Distilleries .....	17.9	\$23,342,286
Paper mills .....	11.4	\$7,589,897
Farm machinery and equipment manufacturing .....	9.5	\$6,231,934
Lawn and garden equipment manufacturing .....	50.2	\$24,462,639
Food product machinery manufacturing.....	4.8	\$1,553,600
All other industrial machinery manufacturing .....	90.4	\$25,742,654
Veterinary services.....	1,081.0	\$77,891,781
Landscape and horticultural services.....	2,620.7	\$212,567,508
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All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.